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### P.19 Characteristics of SARS-CoV-2 positive obstetric patients within one UK health board

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**Introduction:** The obstetric impact of COVID-19 remains undetermined, with case series scarce and reported outcomes variable. The UK Obstetric Surveillance System (UKOSS) recently reported on a national cohort of pregnant women who required hospital admission due to COVID-19 between March and April 2020.<sup>1</sup> We aimed to assess the demographics and outcomes for obstetric patients with COVID-19 infection within our Scottish, inner-city health board and compare this against that reported by UKOSS.

**Methods:** Caldicott Guardian approval was obtained and the requirement for ethical approval waved by the local research ethics service. All female patients of child-bearing age (age 16–49) with a positive SARS-CoV-2 test between 16 March – 3 June 2020 were identified by the local Infection Prevention and Control team. These data were cross-referenced with local electronic notes systems to identify pregnant or recently pregnant women (within 6 weeks post-partum). Collected data were de-identified prior to analysis and analyses performed using R statistical software. Descriptive statistics are reported with results expressed as mean (SD), median [IQR], or n (%).

**Results:** In total, 741 eligible women tested positive for SARS-CoV-2 within the study period. Twenty-three (3%) were pregnant or recently pregnant, with 14 of these women (60%) requiring hospital admission (representing 5.1 cases per 1000 maternities). All identified patients of Black or Asian ethnicity were admitted to hospital (5 in total), whilst only 47% of women of white ethnicity were admitted. The most common symptoms in admitted patients were cough (present in 64% of cases) and fever (present in 57% of cases). Amongst admitted patients, median age was 31.5 [29.3–34.0], median gestation at diagnosis 30.5 [24.3–37.5] weeks and 6 patients (43%) had a booking BMI >30 kg/m<sup>2</sup>. Three hospitalised patients (21.4%) required oxygen therapy and one required post-operative ICU monitoring. Two fetal losses occurred before 22 weeks gestation. No neonatal deaths occurred and no infants tested positive for SARS-CoV-2.

**Discussion:** During this “first wave” of the pandemic, rates of COVID-19 were in keeping with those reported by UKOSS. This may reflect local adherence to shielding advice, or that testing was performed only on symptomatic patients. Also in keeping with results from UKOSS, patients from minority ethnic groups (and those with high BMIs) were over represented in hospital admission rates. All patients studied have subsequently been discharged home and mainly required level 1 care during admission. Numbers for neonatal outcomes are low and further conclusions cannot be made from these data.

### References

- [1]. Knight M, Bunch K, Vousden N et al. Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV-2 infection in UK: national population based cohort study. *BMJ* 2020; 369: m2107.

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### P.20 COVID-19 and obstetrics: Comparing the “Waves”

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**Introduction:** Following the initial spike of SARS-CoV-2 infections seen in the UK in Spring 2020, a subsequent upsurge in cases has occurred.<sup>1</sup> Here, we investigate the rates of SARS-CoV-2 infection amongst pregnant women within our local health board during both in the “first wave” of infections and more recently. We aimed to compare the characteristics and outcomes of patients during both time periods.

**Methods:** Caldicott Guardian approval was obtained and requirement for ethical approval waived by the local research ethics committee. All female patients of child-bearing age with a positive SARS-CoV-2 result between 16 March – 18 December 2020 were identified by our local infection prevention and control team. These patients were cross-referenced to local electronic notes systems to identify pregnant or recently pregnant women (within 6 weeks post-partum). “First wave” cases were defined as occurring between 16/03/2020 and 31/07/2020, while “second wave” cases were defined as occurring between 01/08/2020 and 18/12/2020. Collected data were de-identified prior to analysis. Descriptive statistics are reported with results expressed as mean (SD), median [IQR], or n (%).

**Results:** During the first wave, 23 pregnant or recently pregnant women tested positive for SARS-CoV-2, of these 14 (61%) were admitted to hospital. During the second wave, 75 pregnant or recently pregnant women tested positive, with 29 (39%) admitted. In both cohorts, cough was the most prevalent symptom (present in 39% of patients in the first wave and 36% in the second wave), however, asymptomatic infection was slightly more common in the second wave (20% asymptomatic in first wave, 28% asymptomatic in second wave). Of the admitted patients, 1 patient required ICU admission in the first wave whilst in the second wave 4 patients required ICU and 5 required medical HDU. Characteristics of studied patients are shown below.

**Table:** Characteristics of pregnant women with confirmed SARS-CoV-2 infection

	1st Wave Cases (n=23)	2nd Wave Cases (n=63)
Age, years	31 [29.5-34.0]	30 [26.0-33.0]
BMI, kg/m <sup>2</sup>	28 [24.0-33.2]	27.4 [23.5-31.6]
Parity, n	1 [0-1]	1 [0-2]
Gestation at symptom onset, weeks	26 [8.5-33.5]	28 [18-34]

Data are median [IQR]

**Discussion:** Over equal time periods, we demonstrated an increase in the number of obstetric patients with positive SARS-CoV-2 tests. Asymptomatic infection was slightly more common in the second wave and greater levels of testing (both in the community and perinatally) may help to explain both these findings. It is, however, of note that more patients required admission to critical care facilities in the second wave. We plan to continue prospective data collection in order to inform future service planning and delivery.

### References

- [1]. UK Government. Coronavirus (COVID-19) in the UK. <https://coronavirus.data.gov.uk/>.

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